

Korea Institute of Patent Information Achieves Real-Time Data Sharing with Web Services



Korea Institute of Patent
Information
Seoul, Korea
www.kipi.or.kr

Industry:

Public Sector

Employees:

500

Oracle Products & Services:

Oracle Database
Oracle Real Application Clusters
Oracle SOA Suite
Oracle Content Database Suite
Oracle Application Server
Oracle JDeveloper Suite

Oracle Partner:

Information Technology &
Consulting
www.itnc.co.kr

“Adopting an SOA strategy enabled us to improve information sharing and service response time. It is also easier to manage and integrate content such as graphics files. Oracle RAC also ensures our services are available around the clock.” – Kang Chang-soo, Team Manager, IT Planning & Development, Korea Institute of Patent Information

The Korea Institute of Patent Information (KIPI) was founded in 1995 to provide and manage data related to intellectual property rights (IPR) in South Korea. As an agency of the Korean Intellectual Property Office (KIPO), KIPI is responsible for disseminating information on local and international IPR. KIPI also provides analysis services to companies, research institutes, and investors. Its aim is to enhance South Korea’s standing in the international research community.

A key KIPI service is the Korea Industrial Property Rights Information Service, a free patent information database that includes all IPR data since 1947. The database is updated daily and is a critical resource for local and international organizations.

In 2006, KIPI adopted a service-oriented architecture (SOA) strategy to make it easier to upload, integrate, share, and manage data. The agency selected a range of Oracle SOA Suite applications to integrate the main KIPO database to its trademark database, ensuring information can be updated regularly from a variety of sources. It also moved to a two-node clustered server environment to boost the reliability and availability of its service.

Web Services Enable Easier Information Sharing

An increase in demand for KIPI’s services prompted the agency to review the way it managed and distributed information. In the past, organizations that wanted trademark data had to submit a request to KIPI and wait up till 10 days for information to be compiled. This approach was inefficient and frustrated the agency’s clients.

To resolve this issue, KIPI decided to move to an SOA environment to make it easier to collect, share, and manage

Key Benefits:

- Enhanced information sharing by making it easier to access trademark database
- Enabled extract, transform, and load (ETL) process to be reduced from four to two hours
- Ensured data could be delivered to users in under an hour, as opposed to three to ten days in the past
- Cut development time and costs by reusing software codes
- Improved content management by establishing consistent information policies and processes
- Achieved high availability through the use of clustering technology

information. It chose applications from Oracle's SOA Suite, including Oracle BPEL Process Manager, to link its trademark database to the KIPO database and model a number of workflows. This made it easier to extract, transform, and load data from the KIPO database to the trademark database. In the past, this process was completed overnight and took up to four hours; using SOA, the time has been reduced to two hours.

Other information service and patent institutes do not need to install their own databases but can draw on data contained in the KIPI trademark database. Moreover, these institutes can reuse the application programming interfaces (APIs) developed by KIPI to develop their own trademark information service. A sample code is available for each service item, saving developers time and money when building a new information service.

Achieving Real-Time Service

KIPI used Oracle BPEL Process Manager to model workflows for its paid trademark information service. In the past, users submitted a request then had to wait between three and ten days for information to be manually compiled and delivered via FTP transfer or disk. Now, when a request comes in, an approval e-mail is automatically sent to the client, enabling them to login to the trademark database and download their required information. The whole process can be completed in less than an hour.

Effective Content Management

KIPI installed Oracle Content Database Suite to ensure it could better manage large volumes of unstructured content such as documents, spreadsheets, and images in a centralized repository. Previously, it stored these files on a file server system, which made access difficult. Oracle Content Database Suite helped KIPI establish consistent information policies and processes, ensuring data is easier to manage, find, and share.

Always-Available Service

To ensure high service availability, KIPI implemented Oracle Database 10g and Oracle Real Application Clusters to build a two-node server cluster. Oracle's clustering technology distributes the workload across two machines, ensuring high performance. If one server was to fail, the workload is instantly transferred to the second machine. This guarantees 24-hour access to the trademark database.

Why Oracle?

According to Kang Chang-soo, team manager of IT planning and development at the Korea Institute of Patent Information, the agency chose Oracle because the software offered a complete SOA solution.

“Oracle SOA Suite enabled us to implement an integrated SOA environment in a short timeframe,” he said. “The platform made it very easy to coordinate Web services and model new business processes. It is a solution we can see ourselves using well into the future.”

Implementation Process

KIPI engaged Oracle Certified Advantage Partner Information Technology & Consulting (IT&C) to design, develop, deploy, and manage the new environment. The project began in November 2006 and was completed three months later.

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